

**GRANITE STATE POLL**

**FOR**

**THE STATE OF NEW HAMPSHIRE**  
**DEPARTMENT OF**  
**HEALTH AND HUMAN SERVICES**

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University of New Hampshire

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## **The University of New Hampshire**

### **Survey Center**

The UNH Survey Center is an independent, non-partisan academic survey research organization and a division of the UNH Carsey Institute.

The Survey Center conducts telephone, mail, e-mail, Internet, and intercept surveys, as well as focus groups and other qualitative research for university researchers, government agencies, public non-profit organizations, private businesses, and media clients.

Our senior staff has over 40 years experience in designing and conducting custom research on a broad range of political, social, health care, and other public policy issues.

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## EXECUTIVE SUMMARY

The University of New Hampshire Survey Center included a series of questions on its July, 2008 Granite State Poll for New Hampshire Department of Health and Human Services. The major purpose of these questions was to assess the familiarity with Lyme disease, West Nile Virus, and Eastern Equine Encephalitis (Triple E) among New Hampshire adults. Five-hundred and nineteen (519) New Hampshire adults were interviewed by telephone between July 11 and July 20, 2008. The margin of sampling error for the survey is +/- 4.3%. (See Technical Report below for a more detailed description of survey methods.) The following figures display survey results, detailed tabular results can be found in Appendix A, and Appendix B contains the survey instrument.

The major findings of the survey include:

### **Lyme Disease**

- The vast majority of New Hampshire residents (98%) have heard of Lyme disease prior to being asked about it for this survey. **Figure 1**
- Among those that have heard of Lyme disease, 14 percent of New Hampshire residents say they are very concerned about the possibility of getting sick from Lyme disease in the coming year, 35 percent say they are somewhat concerned, 35 percent say they were not very concerned, and 17 percent said they were not at all concerned. **Figure 2**
- Among those that have heard of Lyme disease, New Hampshire residents were asked to name all the ways they think that Lyme disease can be passed to people. The vast majority of New Hampshire residents (93%) say they think Lyme disease is passed to people by being bitten by an infected tick, followed by being bitten by an infected mosquito (10%), from person to person contact (2%), eating infected food (2%), 1 percent said from some other source, and 2 percent say they do not know. **Figure 3**
- More than half of New Hampshire residents (55%) say that during the past year they always looked for and removed any ticks they found on their bodies when they were in wooded or grassy areas, 20 percent say they did sometimes, 14 percent say they never did, and 11 percent say they never spent time in wooded or grassy areas. **Figure 4**
- Less than a third of New Hampshire residents (29%) say that during the past year they always used insect repellent when in wooded or grassy areas, 41 percent say they did sometimes, 18 percent say they never did, and 12 percent say they never spent time in wooded or grassy areas. **Figure 4**
- About one in five New Hampshire residents (21%) say that during the past year they always wore long pants tucked into socks when in wooded or grassy areas, 23 percent say they did sometimes, 42 percent say they never did, and 14 percent say they never spent time in wooded or grassy areas. **Figure 4**
- A small percentage (9%) of New Hampshire residents say that during the past year they always followed all of the above prevention methods when in wooded or grassy areas (looked for and removed ticks, used insect repellent, and wore long pants tucked into socks), while an equally small percentage (4%) say they never performed any of these methods.

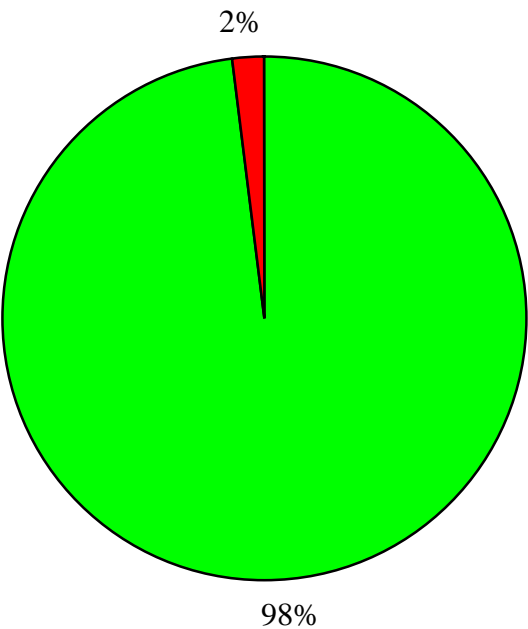
### **West Nile Virus and Eastern Equine Encephalitis**

- The vast majority of New Hampshire residents (98%) have heard of the West Nile virus and Eastern Equine Encephalitis (Triple E) prior to being asked about them for this survey. **Figure 5**
- Among those that have heard of West Nile virus and Triple E, New Hampshire residents were asked to name all the ways they think West Nile and Triple E can be passed to people. The vast majority of New Hampshire residents (93%) say they think they can get West Nile and Triple E by being bitten by an infected mosquito, followed by from bird to person through physical contact (14%), from person to person contact (2%), 2 percent say from some other source, and 4 percent do not know. **Figure 6**
- About a third of New Hampshire residents (36%) say they always used insect repellent during the past year when mosquitoes were biting, 46 percent say they did sometimes, 19 percent say they never did, and 1 percent do not know. **Figure 7**
- A quarter of New Hampshire residents (25%) say they always changed the way they dressed during the past year while mosquitoes were biting, 41 percent say they did sometimes, 33 percent say they never did, and 1 percent do not know. **Figure 7**
- Less than a quarter of New Hampshire residents (22%) say that during the past year they always avoided going outdoors when mosquitoes were most active, 45 percent say they did sometimes, 32 percent say they never did, and 1 percent do not know. **Figure 7**
- A small percentage (7%) of New Hampshire residents say that during the past year they always followed all of the above prevention methods while mosquitoes were biting (changed the way they dressed, used insect repellent, and avoided going outdoors), while an equally small percentage (6%) say they never performed any of these methods.

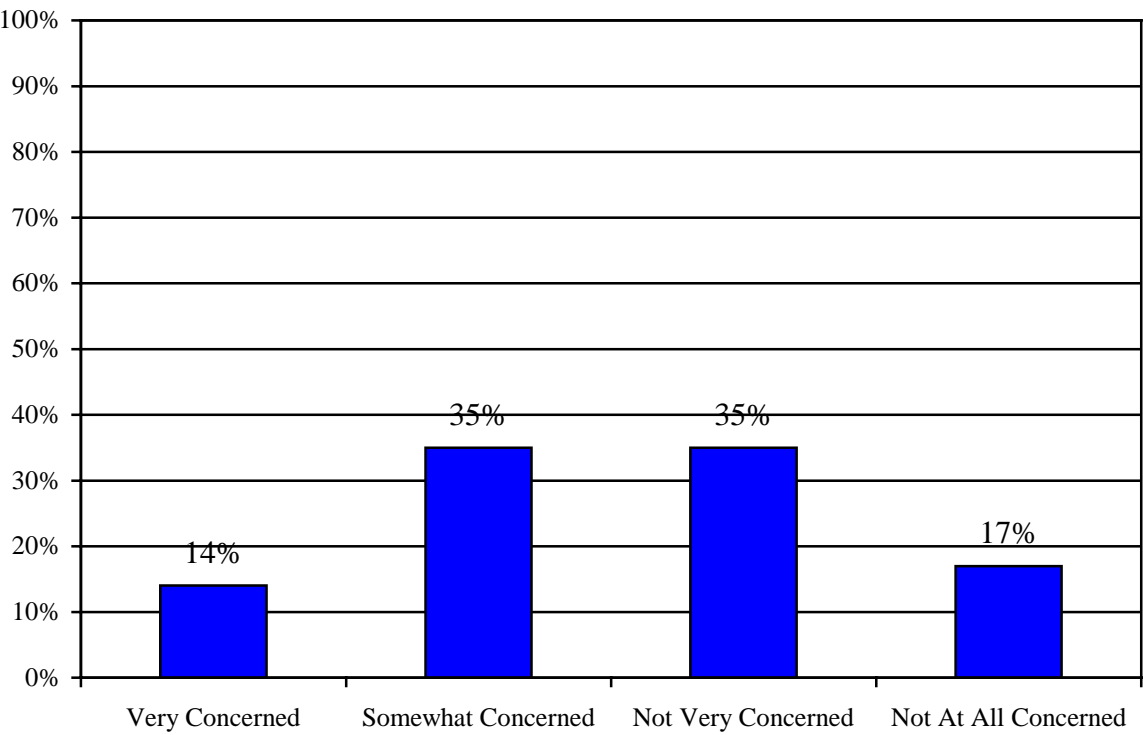
### **Repellent Use**

- Among those that say they never apply insect repellent during the past year (N=111), about one in five (22%) say they did not use repellent because they were concerned about negative health effects, 20 percent say they were not concerned about being bitten, 14 percent say they thought they were outdoors too short a time to use the repellent, 14 percent say they forgot or did not think about it, 8 percent say they do not like the smell or feel of the repellent, 5 percent say the repellent was not convenient when they needed it, 1 percent say it costs too much, 12 percent say it was because of some other reason, 1 percent say it was a combination of reasons, and 3 percent say they do not know. **Figure 8**

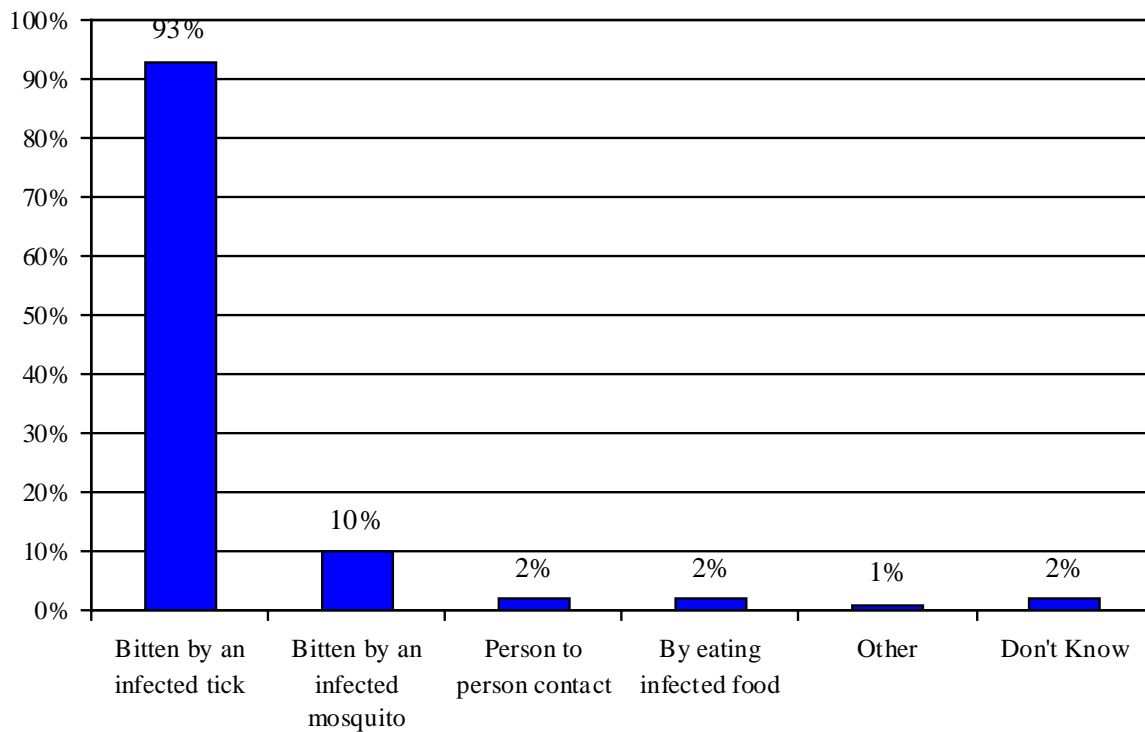
**Figure 1** – “The next questions are about Lyme disease. Before today, had you ever heard of Lyme disease?”



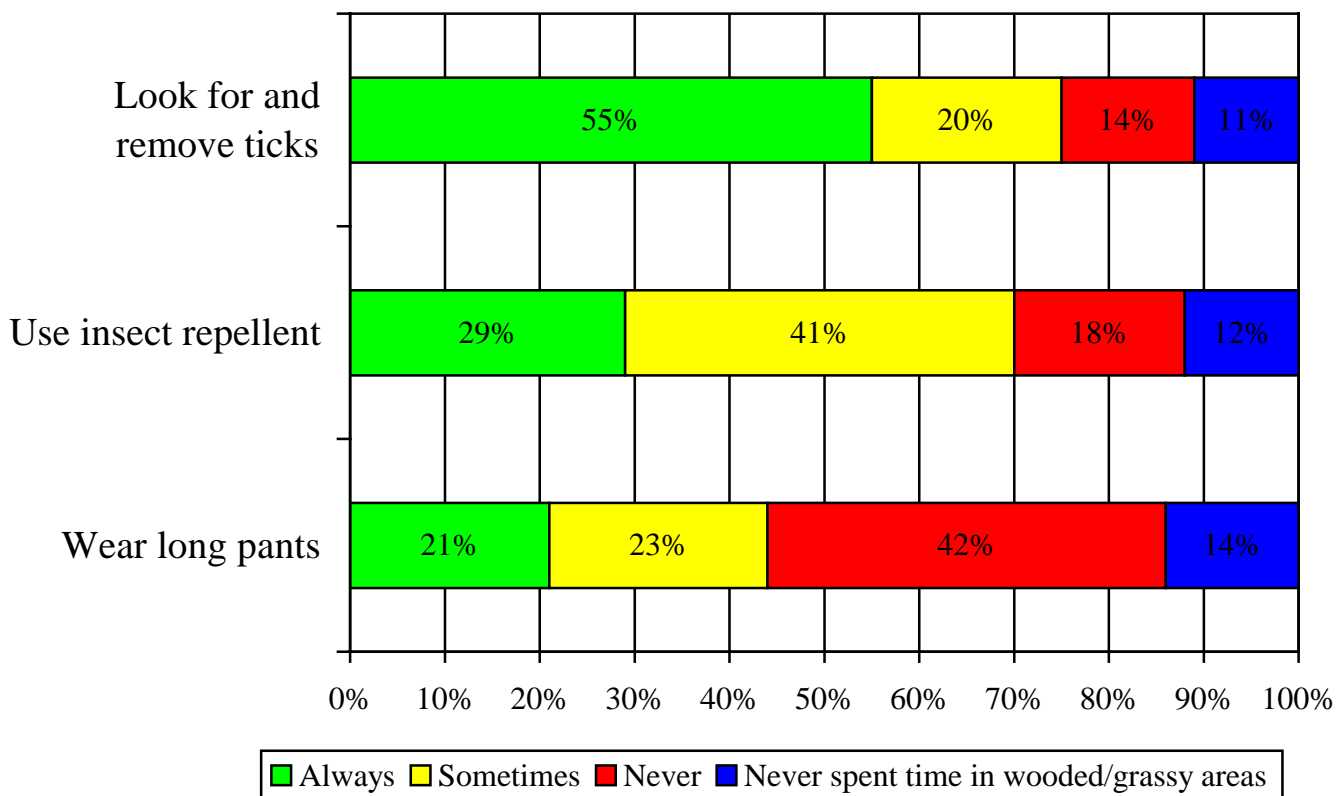
**Figure 2** – “How concerned are you that you may get sick from Lyme disease in the coming year ...”



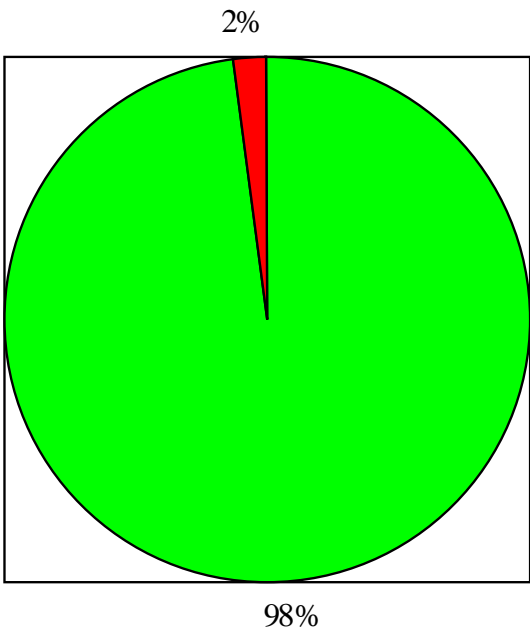
**Figure 3** – “Based on what you have read or heard, how do you think Lyme disease is passed to people?”



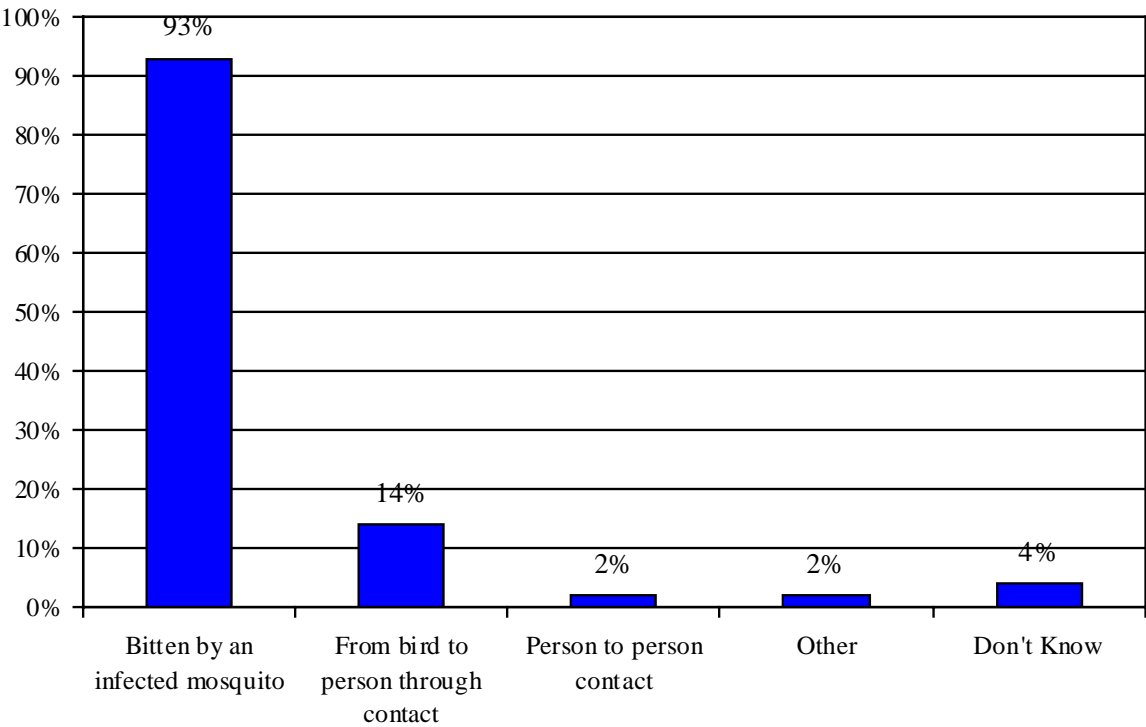
**Figure 4** – Preventative measures for Lyme disease.



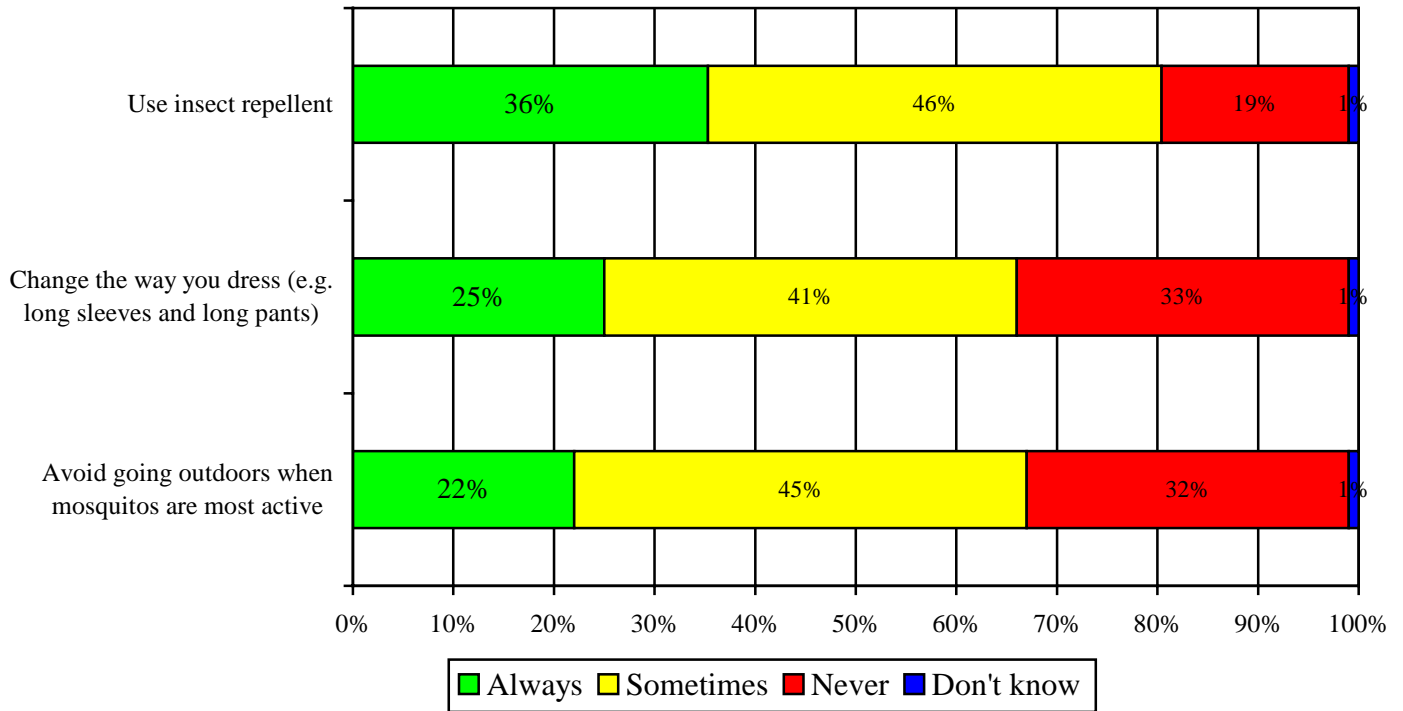
**Figure 5** – “Now I’m going to ask you about West Nile virus and Eastern Equine Encephalitis, also known as triple E. Before today, had you ever heard of West Nile virus or triple E?”



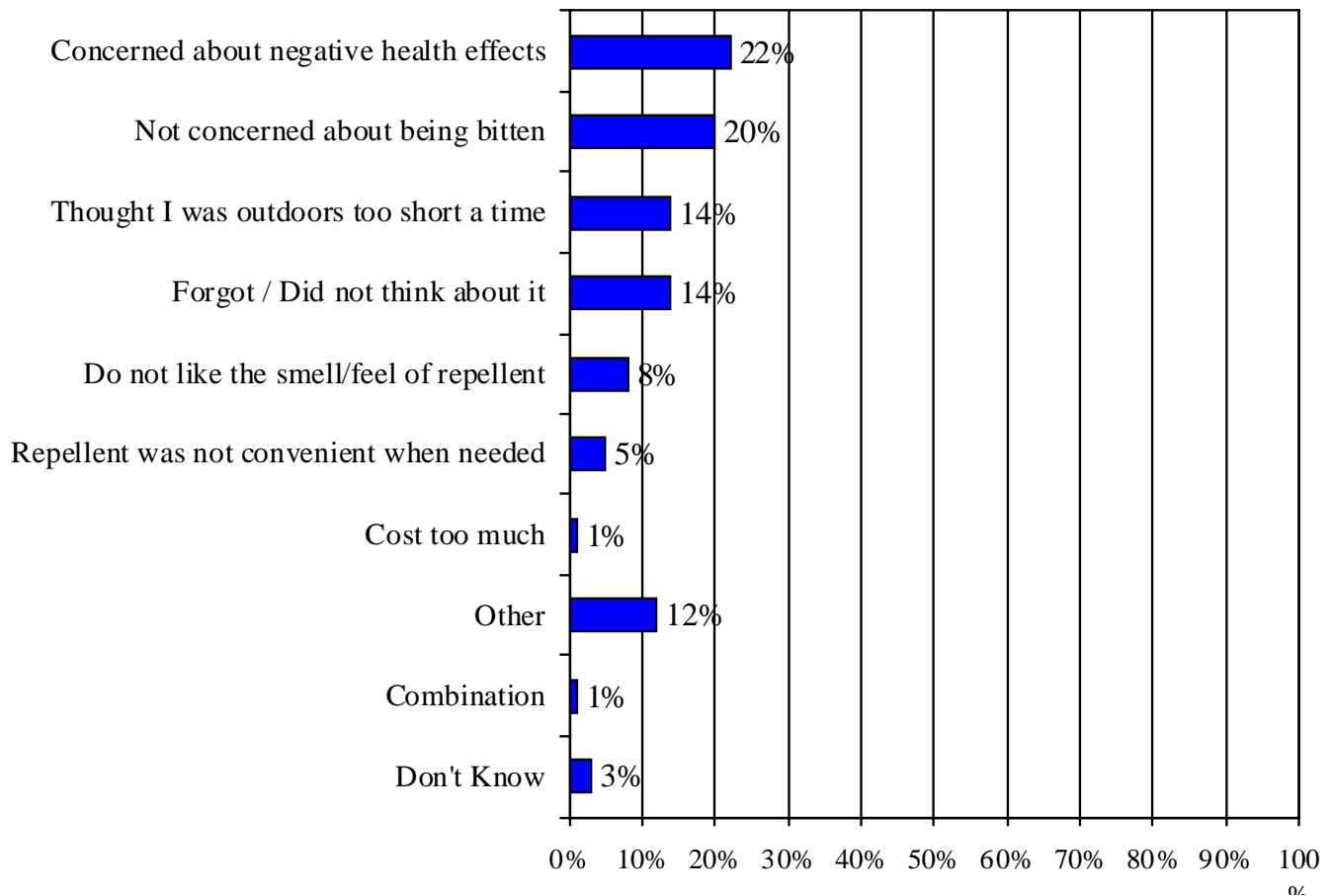
**Figure 6** – “Based on what you have read or heard, how do you think West Nile virus and triple E are passed to people?”



**Figure 7** – Preventative measures for West Nile virus and Triple E



**Figure 8** – “In the previous questions you stated that you never applied insect repellent. Which of the following BEST describes why not?”





## **TECHNICAL REPORT**

### **How the Sample Was Selected**

The Summer, 2008 Granite State Poll was a survey of randomly selected adults in the state of New Hampshire. This survey was conducted using a procedure called Random Digit Dialing (RDD) which is described below.

A sample of households in the area was selected by a procedure known as random digit dialing. The way this works is as follows. First, with the aid of the computer, one of the three-digit telephone exchanges that are currently used in the area (e.g., 772) is randomly selected. The computer then randomly selects one of the "working blocks"--the first two of the last four numbers in a telephone number (e.g., 64)--and attaches it to the randomly selected exchange. Finally, the computer program then generates a two-digit random number between 00 and 99 (e.g., 57) which is attached to the previously selected prefix (772), and the previously selected working block (64) resulting in a complete telephone number -- i.e., 772-6457. This procedure is then repeated numerous times by the computer to generate more random numbers, so that we have a sufficient quantity to conduct the survey. The end result is that each household in the area in which there is a telephone has an equally likely chance of being selected into the sample.

The random sample used in the Granite State Poll was purchased from Scientific Telephones Samples (STS), Foothill Ranch, California. STS screens each selected telephone number to eliminate non-working numbers, disconnected numbers, and business numbers to improve the efficiency of the sample, reducing the amount of time interviewers spend calling non-usable numbers.

Each of these randomly generated telephone numbers is called by one of our interviewers from a centrally supervised facility at the UNH Survey Center. If the number called is found not to be a residential one, it is discarded and another random number is called. (Approximately forty-five percent of the numbers were discarded because they are found to be businesses, institutions, or not assigned.) If it is a residential number, the interviewer then randomly selects a member of the household by asking to speak with the adult currently living in the household who has had the most recent birthday. This selection process ensures that every adult (18 years of age or older) in the household has an equally likely chance of being included in the survey. No substitutions are allowed. If, for example, the randomly selected adult is not at home when the household is first contacted, the interviewer cannot substitute by selecting someone else who just happens to be there at the time. Instead, he or she must make an appointment to call back when the randomly selected adult is at home. In this way, respondent selection bias is minimized.

### When the Interviewing Was Done

New Hampshire adults in the Granite State Poll were interviewed between July 11 and July 20, 2008. Each selected respondent was called by a professional UNH Survey Center interviewer from a centrally supervised facility at the UNH Survey Center. Telephone calls during the field period were made between 9:00 AM and 9:00 PM.

### Response Rates

Interviews were completed with 519 randomly selected adults in New Hampshire from a sample of 5,762 randomly selected telephone numbers. Using American Association for Public Opinion (AAPOR) Response Rate 4, the response rate for the Spring, 2008 Granite State Poll was 23 percent. The formula to calculate standard AAPOR response rate is:

$$\frac{I}{((I+P) + (R+NC+O) + e(UH+UO))}$$

**I**=Complete Interviews, **P**=Partial Interviews, **R**=Refusal and break off, **NC**=Non Contact, **O**=Other, **e**=estimated portion of cases of unknown eligibility that are eligible, **UH**=Unknown household, **UO**=Unknown other.

### Weighting of Data

The data have been weighted to account for known biases of telephone surveys. The data in the Granite State Poll are weighted by the number of adults and telephone lines within households to equalize the chances that any one adult would be selected for inclusion. The data are also weighted by respondent sex, and region of the state.

### Demographic Variable Descriptions

#### \*Regions

Northern NH	(Carroll, Coos and Grafton Counties)
Western NH	(Cheshire and Sullivan Counties)
Central / Lakes	(Belknap and Merrimack Counties)
Hillsborough	(Hillsborough County)
Seacoast	(Rockingham and Strafford Counties)

## Sampling Error

The Granite State Poll, like all surveys, is subject to sampling error due to the fact that all residents in the area were not interviewed. For those questions asked of five hundred (500) or so respondents, the error is +/-4.4%. For those questions where fewer than 500 persons responded, the sampling error can be calculated as follows:

$$\text{Sampling error} = \pm (1.96) \sqrt{\frac{P(1-P)}{N}}$$

Where **P** is the percentage of responses in the answer category being evaluated and **N** is the total number of persons answering the particular question.

For example, suppose you had the following distribution of answers to the question, "Should the state spend more money on road repair even if that means higher taxes?" Assume 1,000 respondents answered the question as follows:

YES	- 47%
NO	- 48%
DON'T KNOW	- 5%

The sampling error for the "YES" percentage of 47% would be

$$\pm (1.96) \sqrt{\frac{(47)(53)}{1,000}} = \pm 3.1\%$$

for the "NO" percentage of 48% it would be

$$\pm (1.96) \sqrt{\frac{(48)(52)}{1,000}} = \pm 3.1\%$$

and for the "DON'T KNOW" percentage of 5% it would be

$$\pm (1.96) \sqrt{\frac{(5)(95)}{1,000}} = \pm 1.4\%$$

In this case we would expect the true population figures to be within the following ranges:

YES	43.9% - 50.1% (i.e., 47% +/-3.1%)
NO	44.9% - 51.1% (i.e., 48% +/-3.1%)
DON'T KNOW	3.6% - 6.4% (i.e., 5% +/-1.4%)